

REMARKS

On page 2 of the final Action, claims 1-3, 8, 12-14, 19, 20, 23 and 25 were withdrawn from further consideration as being drawn to a nonelected invention.

On page 2 of the final Action, claims 10 and 18 were objected to as being of improper dependent form. On page 3 of the final Action, claim 10 was rejected under 35 U.S.C. 112, second paragraph. On page 3 of the final Action, claims 5-7, 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz et al. in view of Lilleland et al. On page 6 of the final Action, claims 21, 22, 24 and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz et al. in view of Lilleland et al. and further in view of Lee et al.

In view of the rejections and objection, claims 6, 20 and 22 have been amended in independent form, and claims 1-5, 8-10, 12-14, 19, 21 and 23-26 have been cancelled. Therefore, claims 6, 7, 20 and 22 are pending in the application.

In particular, claim 6 has been amended to include the subject matter of claim 5. Claim 20 has been amended to include the subject matter of claims 1 and 19, wherein the limitations in claim 1 added in the previous amendment and regarded as being directed to nonelected invention were deleted. Therefore, it is believed that claim 20 now amended is readable on the elected species. Claim 22 have been amended to include the subject matter of claims 5 and 21. Therefore, the amendments do not introduce new issue, and claims now pending in the application are readable on the elected species.

In claims 6, 20 and 22, there is a limitation such that a front surface of the protector is on a same plane as the front surface of the front board. Namely, it means that, in Fig. 8, the front (lower) surface of the front board 5 is flush with the front (lower) surface of the protector 64.

In this respect, in claims 6, 20 and 22, it is defined as "a front board facing the substrate holder", and "a clamping plate disposed at a front side of the front board close to the substrate holder so that an area of the front board not covered by the clamping plate is exposed to plasma." Thus, it is clear that the front surface of the front board 5 means a lower surface of the board 5 facing the substrate holder, and is flush with the front (lower) surface of the protector 64.

On page 5, lines 2-5 of the final Action, it was held that "Lilleland et al. discloses a plasma apparatus comprising a protector 17 covering a front surface of a clamping plate 18 which is flush with a front board of an upper electrode 10 (see, fig. 1 and col. 4-line 49 to col. 8-line 18."

In this respect, it is explained on column 2, lines 45-49 of Lilleland et al. that "A plasma confinement ring 17 comprised of a stack of spaced-apart quartz rings surround the outer periphery of electrode 10."

Namely, in view of Fig. 1, the lower surface of the clamping plate 18 projects downwardly from the lower surface of the upper electrode 10. In particular, the plasma confinement ring 17 is attached to a lower surface of the dielectric annular ring 18, so that the lower surface of the annular ring 18 is not flush with the electrode 10. On the other hand, in Lilleland et al., an upper surface of the dielectric annular ring 18 is flush with an upper surface of an electrode 10. The arrangement of the electrode 10, plasma confinement ring 17 and annular ring is clearly shown in the drawing attached herewith.

In the invention, the front surface facing the substrate holder is flush with the front, i.e. lower, surface of the protector 64. The upper face of the electrode 10 in Lilleland et al. is not the front surface of the invention, and corresponds to the back surface of the front board of the invention. The surface

exposing to plasma is not plane in Lilleland, different from the invention.

As explained above, the limitation such that the front surface of the protector is on the same plane as the front surface of the front board means that the side exposing to plasma is plane and uniform. Lilleland et al. does not have the structure now clearly recited in the claims.

In the invention, since the side exposing to plasma is plane and uniform, it is possible to obtain the uniform plasma to thereby provide uniform plasma processing, as stated in paragraphs 0069 and 0072 of the specification.

As stated in the final Action, Lenz et al. does not disclose a protector covering a front surface of the clamping plate and flush with the front board. Since Lilleland et al. does not disclose the structure such that the front surface of the protector is not the same plane as the front surface of the front board, as explained above, even if Lilleland et al. and Lenz et al. are referred to, the structures of the claims as explained above are not obvious.

Lee et al. discloses screws 130 with a quartz cap 140. However, the structure of the protector covering the front surface of the clamping plate and flush with the front board, as explained above, is not disclosed in Lee et al.


The features of the invention now clearly recited in the claims are not obvious from the cited references. Claims pending in the application are patentable over the cited references.

Reconsideration and allowance are earnestly solicited.

One month extension of time is hereby requested. A credit card authorization form in the amount of \$120.00 is attached herewith for the one month extension of time.

Respectfully Submitted,

HAUPTMAN KANESAKA BERNER
PATENT ABENTS, LLP

by 
Manabu Kanesaka
Reg. No. 31,467
Agent for Applicants

1700 Diagonal Road, Suite 310
Alexandria, VA 22314
(703) 519-9785